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| APPLICATION NO.        | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|------------------------|-------------|----------------------|---------------------|------------------|
| 10/560,197             | 04/14/2006  | Craig Duncan Webster | 920602-100935       | 5650             |
| 23644                  | 7590        | 09/27/2007           | EXAMINER            |                  |
| BARNES & THORNBURG LLP |             |                      | LOW, LINDSAY M      |                  |
| P.O. BOX 2786          |             |                      | ART UNIT            | PAPER NUMBER     |
| CHICAGO, IL 60690-2786 |             |                      | 3721                |                  |
| MAIL DATE              |             | DELIVERY MODE        |                     |                  |
| 09/27/2007             |             | PAPER                |                     |                  |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

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|                              |                 |                       |  |
|------------------------------|-----------------|-----------------------|--|
| <b>Office Action Summary</b> | Application No. | Applicant(s)          |  |
|                              | 10/560,197      | WEBSTER, CRAIG DUNCAN |  |

|                |          |  |
|----------------|----------|--|
| Examiner       | Art Unit |  |
| Lindsay M. Low | 3721     |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) Responsive to communication(s) filed on 14 April 2006.
- 2a) This action is **FINAL**.                            2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) Claim(s) 46-66 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 46-53 and 59-66 is/are rejected.
- 7) Claim(s) 54-58 is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 14 April 2006 is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All    b) Some \* c) None of:
  1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO/SB/08)  
 Paper No(s)/Mail Date \_\_\_\_\_.
- 4) Interview Summary (PTO-413)  
 Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) Notice of Informal Patent Application
- 6) Other: \_\_\_\_\_.

**DETAILED ACTION**

***Priority***

1. Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d).

***Drawings***

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: 100 (Fig. 13) and 112 (Fig. 16). In addition, the block diagrams (Figs. 4-7 and 9-10) are objected to because they fail to show the structural details as described in the specification. Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing or else each block in the diagrams should be properly labeled. MPEP § 608.02(d). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as

either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 55 and 59 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 55 recites the limitation "the rotor." There is insufficient antecedent basis for this limitation in the claim. Claim 59 recites the limitation "third sensor means" when a "second sensor means" has not been claimed. It is unclear whether there are two or three sensor means. Hereinafter, it will be assumed that the "third sensor means" is a "second sensor means."

5. Claims 46-65 fail to invoke 35 U.S.C. 112, sixth paragraph because the terms "first sensor means," "first control means," "computation means," "second sensor means," "torque feedback means," "second control means," "third sensor means," "biasing means," "mechanical braking means," "first switch means," and "switch means" fail the first 2 prongs of the 3-prong analysis as stated in MPEP 2181, which includes:

- (1) the claim limitations must use the phrase "means for" or "step for;"
- (2) the "means for" or "step for" must be modified by functional language;

(3) the phrase "means for " or "step for " must not be modified by sufficient structure, material, or acts for achieving the specified function.

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 46-52, 59-60 and 64-66 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miller et al (5,948,030).

Miller discloses the same invention including a body (sleeve for the steering column) and a handwheel 26. A first motor 46 is operable for rotating the parts, and a first sensor means 28 responds to rotation of the handwheel. First control means 16 operates to rotate the parts depending on the angular position of the handwheel (abstract). Note that the angular velocity of the parts is capable of being non-linearly related to the angular velocity of the handwheel (col. 3 lines 52-67). A variable low-pass filter (Fig. 3) transmits signals below a cut-off frequency and attenuates signals above the cut-off frequency (col. 4 lines 1-14). A battery 10 allows the device to operate cordlessly, and sensor means (part of the control means 16) determines the electromotive force in the battery. Note that the user's hands are considered the biasing and mechanical braking means as they are capable of opposing rotation of the handwheel. A first portion 29 has the handwheel attached to it and a second portion 47

is movable between a first and second position relative to the first portion. Switch means (Fig. 3) opens and closes depending on different positions of the parts (col. 4 lines 1-14).

Miller is silent about having a chuck in the handwheel-operated device. However, the examiner takes Official Notice that it is well known to use a clamping device such as a chuck to secure a wheel to a steering knuckle for the purpose of allowing it to rotate in response to a handwheel. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to provide a chuck so as to secure Miller's wheel to the steering knuckle while allowing it to rotate in response to the handwheel 26.

8. Claims 46-50, 52-53, 59, and 64-66 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gilmore (2002/0153856. See U.S. Patent equivalent 6,836,614) in view of Horner (3,120,845).

Gilmore discloses the same invention including a body and a chuck 22. A user-operated part 24 is rotated relative to the body. The body has a first motor 16 operable to rotate the chuck. First sensor means (Fig. 2) is responsive to rotation of the user-operated part 24 (col. 7 lines 8-13). First and second gear wheels are part of a gear train 20. A battery 18 allows the device to operate cordlessly and sensor means (Fig. 2) is operable to modulate the voltage applied to the motor 16. Switch means (Fig. 9) opens and closes depending on different positions of the parts.

Gilmore fails to disclose the user-operated part being a handwheel. However, Horner teaches a handwheel 49 that is used to rotate a chuck where the angular

velocity of the chuck depends on the angular velocity of the handwheel for the purpose of an additional rotational control of the spindle, for example, when the spindle is jammed. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to provide a handwheel as a user-operated part for the purpose of rotating Gilmore's chuck such that the angular velocity of the chuck depends on the angular velocity of the handwheel in order to provide additional rotational control of the tool spindle. This allows the user to have more control over varying the speed of the chuck.

9. Claims 60-63 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gilmore (2002/0153856. See U.S. Patent equivalent 6,836,614) in view of Horner (3,120,845). as applied to claims 46-50, 52-53, 59, and 64-66 above, and further in view of Tomiser (4,811,623).

The modified device of Gilmore discloses the same invention substantially as claimed but is silent about the handwheel having a handle that extends between a folded and extended position. However, Tomiser teaches a handwheel that is moveable between a folded position 43 and an extended position as shown in Fig. 2 (see col. 3 lines 45-58) for the purpose of being able to fold the handle out of the way when it is not being used. Mechanical and biasing means (col. 3 lines 59-67 and col. 4 lines 1-13) are used to oppose rotation of the device. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to provide a foldable handle on Gilmore's modified handwheel for the purpose of being able to fold it out of the way when it is not in use.

***Allowable Subject Matter***

10. Claims 54-58 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Conclusion***

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Kibblewhite et al, Hillestad, Linsker, Romano, Walton, Liao, Albertson, Brown, Horton et al, Jurney, Shaler, Hulett, Goodman, Mack et al, Hartman et al, Saussele et al, Harmes, and Jacobsen are cited to show similar inventions.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lindsay M. Low whose telephone number is 571-272-1196. The examiner can normally be reached on Monday thru Friday 7:30 to 5:00.

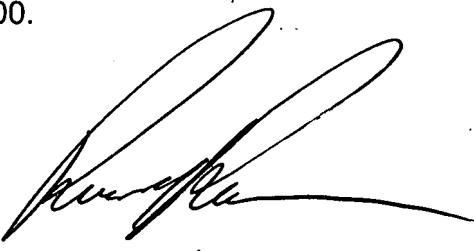
13. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rinaldi Rada can be reached on 571-272-4467. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3721

14. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

LML

9/25/2007



Rinaldi I. Rada  
Supervisory Patent Examiner  
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